Colorado Daily

CU researchers, 3QMatrix working to ease the pain of skin grafts

Company a product of entrepreneurs, CU research, CU Tech Transfer

By RICHARD VALENTY, Colorado Daily Staff Writer
Monday, August 4, 2008

You hope you'll never need it, but in the future, victims of severe burns might benefit from the work of CU researchers and a relatively new company.

CU's Technology Transfer Office (TTO) recently announced that it has executed an exclusive option agreement with the Boulder-based company 3QMatrix, Inc., for the firm to commercialize technology developed at CU-Boulder. The agreement means that TTO won't attempt to find another commercial vehicle for the technology during a specified time period, and a license agreement could follow the option agreement.

3QMatrix is currently working towards releasing a new bi-layer dressing for the treatment of skin graft donor sites in burn patients. The dressing will incorporate "biodegradable thiol-ene hydrogel technology" developed in the labs of Christopher Bowman, Associate Dean for Research, and Kristi Anseth, Distinguished Professor – both in CU-Boulder's Department of Chemical and Biological Engineering.

Johan Baeck, MD, is the President and CEO of 3QMatrix – a company that was developed though a partnership between TTO and the Boulder Innovation Center (BIC), a local business development organization. Baeck said Monday that the dressing, when developed, could literally reduce the pain and risk of infection associated with the skin graft process.

"Most of the time, you put a dressing on the skin, and you actually have to replace the dressing every day or every two days, and that's a very painful proposition," said Baeck.

Baeck also said that constantly replacing dressings may impair the healing of a wound. But the 3QMatrix dressing will be degradable, and he said a key goal is to make the degradation period of the dressing "coincide" with the time period required for the skin to heal.

"So, by the time that the healthy skin underneath is growing into the dressing, it basically will biodegrade, and over time, you may only need to place a dressing once," said Baeck.

Still, there's work to be done before the dressing goes to market. Baeck said 3QMatrix is currently developing its business plan, and after the plan is finalized, it will seek investment capital and funding through grants. Also, Kate Tallman, Director of TTO for CU-Boulder, said the company might

eventually become eligible for State of Colorado matching funds authorized via House Bill 1001, a biotech bill passed during the 2008 legislative session.

On the product-development side, Baeck said next steps include finalizing a lab product, then making sure it can be produced in a third-party manufacturing site, and making sure it can be produced in large quantities.

The company has a Scientific Advisory Board (SAB), which includes CU's Anseth and Bowman, and Baeck said he spends time "brainstorming" about the technology with the CU inventors. Fellow SAB member Dr. Gordon Lindberg is also the Director of the Burn Center at the University of Colorado Hospital, and Lindberg said in a TTO press release that the dressing could "be of tremendous importance to thousands of burn patients."

The 3QMatrix team – including co-founders Baeck, Tim Prodanovich and Praful Shah – could also eventually use the thiol-ene hydrogel technology in products that would be useful for delivering drugs into the bloodstream of a patient.

Baeck said the doctors might be able to place a 3QMatrix product either on the skin or underneath the skin, and the product would once again biodegrade – but in this case, it would also release a beneficial active ingredient.

Only time will tell how successful 3Q Matrix will eventually be, but in 2008, Tallman said the launching of the company demonstrated the value of opening up CU's research portfolio to locals who know how to drive a new business forward.

"This technology has been under development for many years at the university, and it has so many possibilities," said Tallman. "But it's something that could not be easily commercialized without some hands-on involvement of entrepreneurs in the business community."

FYI

For more information about 3QMatrix, visit the Web site www.3QMatrix.com. For more about the CU Technology Transfer Office, visit www.cu.edu/techtransfer. For more about the Boulder Innovation Center, visit www.boulderinnovationcenter.com.

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